Stanford

Sriram Sudarsanam

Postdoctoral Scholar, Neurosurgery

Bio

BIO

Sriram is broadly interested in how cellular interactions shape neurodevelopment. He completed his undergraduate studies at the Indian Institute of Science, and Masters at the Weizmann Institute. His doctoral research in Alex Kolodkin's laboratory at Johns Hopkins addressed the development of idiosyncratic axonal arborization patterns of cortical neurons. He developed genetic strategies to visualize and perturb sparse populations of neurons in the mouse brain, using which he identified novel molecular and cellular determinants of spatially-restricted axon branching in vivo.

Now, as a postdoctoral scholar in Brad Zuchero's laboratory, Sriram is working to develop novel genetic tools to observe and perturb neuron-oligodendrocyte interactions in vivo. In collaboration with Ivan Soltesz's laboratory, he aims to employ these tools to understand how myelination regulates neural circuit assembly and function.

HONORS AND AWARDS

- Walter and Idun Berry Postdoctoral Fellowship, Stanford University School of Medicine (2025-)
- Distinguished Graduate Student Fellowship, The Johns Hopkins Kavli Neuroscience Discovery Institute (2022-2024)
- KVPY Undergraduate Fellowship, Department of Science and Technology, Govt. of India (2011-2015)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Johns Hopkins University (2025)
- Master of Science, Weizmann Institute Of Science (2018)
- Bachelor of Science, Indian Institute of Science (2015)

STANFORD ADVISORS

- Brad Zuchero, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **Regulation and function of interstitial axon branching in cortical projection neurons.** *Trends in neurosciences*
  Ziak, J., Sudarsanam, S., Kolodkin, A. L.
  2026

- **Cell-type-selective synaptogenesis during the development of layer 6 corticothalamic neuron connectivity in the mammalian neocortex.** *Cell reports*
  Gutman-Wei, A. Y., Sudarsanam, S., Cabalinan, A. G., Shahid, N., Shi, A., Guzman-Clavel, L. E., Spindler-Krage, S. M., Agarwal, A., Kolodkin, A. L., Brown, S. P.
  2026; 45 (1): 116792

- **Mef2c Controls Postnatal Callosal Axon Targeting by Regulating Sensitivity to Ephrin Repulsion** *JOURNAL OF NEUROSCIENCE*
  Sudarsanam, S., Guzman-Clavel, L. E., Dar, N., Ziak, J., Shahid, N., Jin, X. O., Kolodkin, A. L.
  2025; 45 (21)
- **Microtubule-binding protein MAP1B regulates interstitial axon branching of cortical neurons via the tubulin tyrosination cycle** *EMBO JOURNAL*
  Ziak, J., Dorskind, J. M., Trigg, B., Sudarsanam, S., Jin, X. O., Hand, R. A., Kolodkin, A. L.
  2024; 43 (7): 1214-1243
- **Drebrin Regulates Collateral Axon Branching in Cortical Layer II/III Somatosensory Neurons** *JOURNAL OF NEUROSCIENCE*
  Dorskind, J. M., Sudarsanam, S., Hand, R. A., Ziak, J., Amoah-Dankwah, M., Guzman-Clavel, L., Soto-Vargas, J., Kolodkin, A. L.
  2023; 43 (46): 7745-7765
- **Cofilin regulates axon growth and branching of Drosophila γ-neurons** *JOURNAL OF CELL SCIENCE*
  Sudarsanam, S., Yaniv, S., Meltzer, H., Schuldiner, O.
  2020; 133 (8)